

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S36	19362	raney adj nickel	US-PGPUB; USPAT	OR	ON	2007/02/28 11:04
S37	20131	dehydrogenat\$5	US-PGPUB; USPAT	OR	ON	2007/02/28 11:04
S38	1491458	gas\$5 vapor\$4	US-PGPUB; USPAT	OR	ON	2007/02/28 11:05
S39	828	S36 and S37 and S38	US-PGPUB; USPAT	OR	ON	2007/02/28 11:05
S40	48	S36 and S37 same S38 same (alcohol ethanol)	US-PGPUB; USPAT	OR	ON	2007/02/28 11:10
S41	9	raney and alcohol with feed adj gas	US-PGPUB; USPAT	OR	ON	2007/02/28 11:13
S42	415	raney and alcohol with (gas\$5 vapor\$4) with hydrogen	US-PGPUB; USPAT	OR	ON	2007/02/28 11:13
S43	134	raney and alcohol near5 (gas\$5 vapor\$4) with hydrogen	US-PGPUB; USPAT	OR	ON	2007/02/28 11:16
S44	126	dehydrogenat\$5 same feed adj gas	US-PGPUB; USPAT	OR	ON	2007/02/28 11:16
S45	19	dehydrogenat\$5 same feed near3 gas same alcohol	US-PGPUB; USPAT	OR	ON	2007/02/28 12:02
S46	0	(gas\$5 vapor\$5) near3 phase with dehydrogenat\$3 with alcohol same (sponge with catalyst)	US-PGPUB; USPAT	OR	ON	2007/02/28 12:02
S47	58	(gas\$5 vapor\$5) near3 phase with dehydrogenat\$3 with alcohol	US-PGPUB; USPAT	OR	ON	2007/02/28 12:09
S48	9	("3778477"   "4383124"   "4503261"   "4814513"   "4816606"   "4851584").PN. OR ("5241122").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/02/28 12:08
S49	25	("1975853" "20010018402" "20020019564" "20020099246" "20040133045" "20040199019" "20050049434" "3254128" "3454364" "3522019" "4024044" "4287365" "5292936" "5536694" "5627125" "5928614" "5935277" "6209494" "6284703" "6309758" "6432871" "6646160" "6686075" "6794331" "6818720").PN.	US-PGPUB; USPAT	OR	ON	2007/02/28 12:09
S50	4	"58" and S49	US-PGPUB; USPAT	OR	ON	2007/02/28 12:09
S51	0	S47 and S49	US-PGPUB; USPAT	OR	ON	2007/02/28 12:09

## EAST Search History

S52	6	("5155086"   "5897958"   "6054497"   "6060026"   "6124234"   "6200680").PN. OR ("6689713").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/02/28 12:09
S53	6	("4149009"   "4780481"   "5254520").PN. OR ("6054497").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/02/28 12:11
S54	18	("4122110"   "4291126"   "4346179"   "4440668"   "4552861"   "4559316"   "4576968"   "4596782"   "4659742").PN. OR ("4780481").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/02/28 12:14
S55	67	"518"/\$.ccls. and (copper cu) with (coat\$3 layer\$3 cover\$4)	US-PGPUB; USPAT; USOCR	OR	ON	2007/02/28 12:17
S56	2792	(copper cu) near5 (coat\$3 layer\$3 cover\$4) same catalyst	US-PGPUB; USPAT; USOCR	OR	ON	2007/02/28 12:17
S57	1133	(copper cu) near5 (coat\$3 layer\$3 cover\$4) with catalyst	US-PGPUB; USPAT	OR	ON	2007/02/28 12:17
S58	756	(copper cu) near5 (coat\$3 layer\$3 cover\$4) with catalyst and (dehydrogenation alcohol ethanol hydrogen)	US-PGPUB; USPAT	OR	ON	2007/02/28 12:18
S59	349	(copper cu) near5 (coat\$3 layer\$3 cover\$4) with catalyst and (dehydrogenation alcohol ethanol hydrogen) with (gas\$4 vapor\$5)	US-PGPUB; USPAT	OR	ON	2007/02/28 12:19
S60	53	(copper cu) near5 (coat\$3 layer\$3 cover\$4) with catalyst and (dehydrogenation alcohol ethanol hydrogen) with (gas\$4 vapor\$5) near3 (phase feed)	US-PGPUB; USPAT	OR	ON	2007/02/28 12:23
S61	391	(copper cu) near5 (coat\$3) with catalyst	US-PGPUB; USPAT	OR	ON	2007/02/28 12:23
S62	13	(copper cu) near5 (coat\$3) with catalyst same sponge	US-PGPUB; USPAT	OR	ON	2007/02/28 12:24
S63	1	"6376708".pn.	US-PGPUB; USPAT	OR	ON	2007/02/28 12:37

## EAST Search History

S64	46	("1975853" "2028267" "2384816" "2384817" "20010018402" "20020019564" "20020038051" "20020151436" "3184417" "3254128" "3454364" "3927080" "3928441" "3956370" "3969398" "3998758" "4021373" "4083905" "4380673" "4500721" "4539403" "4582650" "4624937" "4696772" "4711875" "4765874" "4775498" "4782183" "5017729" "5099073" "5179228" "5220055" "5292936" "5367112" "5603844" "5627125" "5689000" "5703273" "5739390" "5866725" "5916840" "5922921" "5986127" "6005140" "6432871" "6646160").PN.	US-PGPUB; USPAT	OR	ON	2007/02/28 12:37
S65	7	S64 and (copper cu) near3 coat\$3	US-PGPUB; USPAT	OR	ON	2007/02/28 12:38
S66	7	("5627125").PN. OR ("5916840").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/02/28 12:40
S67	45	("20010018402"   "20020151436"   "2028267"   "2384816"   "2384817"   "3184417"   "3927080"   "3928441"   "3956370"   "3969398"   "3998758"   "4021373"   "4083905"   "4380673"   "4500721"   "4539403"   "4582650"   "4624937"   "4696772"   "4711875"   "4765874"   "4775498"   "4782183"   "5017729"   "5099073"   "5179228"   "5220055"   "5292936"   "5367112"   "5603844"   "5627125"   "5689000"   "5703273"   "5739390"   "5866725"   "5916840"   "5922921"   "5986127"   "6005140").PN. OR ("6706662").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/02/28 12:47
S68	2	"20020019564".pn. "6376708".pn.	US-PGPUB; USPAT; USOCR	OR	ON	2007/02/28 12:55
S69	3	"20020019564".pn. "6376708".pn. "6005140".pn.	US-PGPUB; USPAT; USOCR	OR	ON	2007/02/28 12:57
S70	12	("20020019564" "3184417" "3454364" "4021373" "4765874" "4782183" "5292936" "5916840" "6432871" "6646160").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/02/28 12:58
S71	1	"5292936".pn.	US-PGPUB; USPAT; USOCR	OR	ON	2007/02/28 12:59

## EAST Search History

S72	9	"6376708"	US-PGPUB; USPAT	OR	ON	2007/02/28 18:23
S73	1	"6376708".pn.	US-PGPUB; USPAT	OR	ON	2007/02/28 18:23
S74	27	429/17,19,34.ccls. and feed near3 gas with (alcohol hydrogen) with (dehydrogen\$5 reform\$5).clm.	US-PGPUB; USPAT	OR	ON	2007/03/01 15:07
S75	0	429/17,19,34.ccls. and feed near3 gas with (alcohol hydrogen) with (dehydrogen\$5 reform\$5) with catayst.clm.	US-PGPUB; USPAT	OR	ON	2007/03/01 15:07
S76	0	429/17,19,34.ccls. and feed near3 gas with (alcohol hydrogen) with (dehydrogen\$5 reform\$5) with cataylst.clm.	US-PGPUB; USPAT	OR	ON	2007/03/01 15:08
S77	6	429/17,19,34.ccls. and feed near3 gas with (alcohol hydrogen) with (dehydrogen\$5 reform\$5) with process.clm.	US-PGPUB; USPAT	OR	ON	2007/03/01 15:09
S78	9	429/17,19,34.ccls. and feed near3 gas with (alcohol hydrogen) with (dehydrogen\$5 reform\$5) with cataly\$4.clm.	US-PGPUB; USPAT	OR	ON	2007/03/01 15:10
S79	1	429/17,19,34.ccls. and feed near3 gas with (alcohol hydrogen) with (dehydrogen\$5 reform\$5) with cataly\$4 with (copper cu).clm.	US-PGPUB; USPAT	OR	ON	2007/03/01 15:10
S80	12	423/248.ccls. and copper near3 catalyst	US-PGPUB; USPAT	OR	ON	2007/03/05 10:30
S81	1650	nickel near2 (sponge foam)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/06/05 08:28
S82	20	S81 with (copper cu) near2 (coat\$4 layer\$4)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/06/05 08:28
S83	37	("3111396"   "3258363"   "3536480"   "3666526").PN. OR ("4076888").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/05 08:36
S84	0	S83 and (copper cu) near2 (foam sponge) and (alcohol ethanol methanol dehydrogenat\$4 reform\$4)	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/05 08:37

## EAST Search History

S85	10	S83 and (alcohol ethanol methanol dehydrogenat\$4 reform\$4)	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/05 08:37
S86	55	("1975853"   "20010018402"   "20020019564"   "20020038051"   "20020151436"   "2028267"   "2384816"   "2384817"   "3184417"   "3254128"   "3454364"   "3927080"   "3928441"   "3950402"   "3956370"   "3969398"   "3998758"   "4021373"   "4083905"   "4380673"   "4500721"   "4539403"   "4582650"   "4624937"   "4696772"   "4711875"   "4765874"   "4775498"   "4782183"   "5017729"   "5099073"   "5179228"   "5220055"   "5292936"   "5367112"   "5603844"   "5627125"   "5689000"   "5703273"   "5739390"   "5866725"   "5916840"   "5922921"   "5986127"   "6005140"   "6376708"   "6432871"   "6646160").PN. OR ("7126024").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/05 09:38
S87	17	copper with metal near2 sponge same catalyst	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/05 09:42
S88	8	copper near2 (coat\$4 layer\$4) with nickel near2 (support base) same catalyst	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/05 09:58
S89	14	copper near2 (deposit\$4) with nickel near2 (support base) same catalyst	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/05 09:58
S90	3	S89 not S87	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/05 11:05
S91	4295	(dehydrogenat\$4 reformat\$4) with (alcohol ethanol methanol)	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/05 18:06
S92	2309	S91 same catalyst	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/05 11:05
S93	173	S91 same catalyst with (copper cu) with (nickel ni)	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/05 11:42
S94	44	S91 same catalyst with (copper cu) with (nickel ni) with (coat\$4 layer\$4 plat\$4)	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/05 11:07

## EAST Search History

S95	3	S91 same catalyst with (copper cu) with (nickel ni) with (coat\$4 layer\$4 plated plating)	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/05 11:09
S96	4	("3723353").URPN.	USPAT	OR	ON	2007/06/05 11:08
S97	26	S91 same catalyst with (copper cu) with (coat\$4 layer\$4 plated plating)	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/05 11:09
S98	26	S97 not S96	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/05 11:12
S99	2340	grace with w with r.as.	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/05 11:12
S100	1	S99 and (nickel near3 sponge)	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/05 11:13
S101	0	S100 and (dehydrogenat\$4 reformat\$4) with (alcohol ethanol methanol)	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/05 11:13
S102	7	S99 and (dehydrogenat\$4 reformat\$4) with (alcohol ethanol methanol)	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/05 11:13
S103	496	S91 same catalyst with (copper cu)	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/05 11:42
S104	18	S91 same catalyst with (copper cu) near4 (layer coating coated plated plating)	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/05 11:43
S105	18	S104 not morganstern.inv.	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/05 11:43
S106	7	S104 not morgenstern.inv.	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/05 15:10
S107	1	wo03/033140	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/06/05 15:10
S108	8355	(dehydrogenat\$4 reform\$8) with (alcohol ethanol methanol)	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/06 09:57
S109	12	S108 and catalyst same (nickel ni) near2 (support base sponge porous honecomb foraminous) with (copper cu) near2 (coat\$4 layer\$4 deposit\$4)	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/05 18:19

## EAST Search History

S11 0	1	"60490231" "60419653"	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/05 18:13
S11 1	21	catalyst same (nickel ni) near2 (support base sponge porous honeycomb foraminous) with (copper cu) near2 (coat\$4 layer\$4 deposit\$4)	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/06 09:26
S11 2	8355	(dehydrogenat\$4 reform\$8) with (alcohol ethanol methanol)	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/06 09:26
S11 3	12	S112 and catalyst same (nickel ni) near2 (support base sponge porous honeycomb foraminous) with (copper cu) near2 (coat\$4 layer\$4 deposit\$4)	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/06 09:26
S11 4	21	catalyst same (nickel ni) near2 (support base sponge porous honeycomb foraminous) with (copper cu) near2 (coat\$4 layer\$4 deposit\$4)	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/06 09:30
S11 5	9	S114 not S113	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/06 09:27
S11 6	7	catalyst same (nickel ni) near4 (support base) near3 (sponge porous honeycomb foraminous) with (copper cu) near2 (coat\$4 layer\$4 deposit\$4)	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/06 16:15
S11 7	16	catalyst same (nickel ni) near5 (sponge porous honeycomb foraminous) with (copper cu) near2 (coat\$4 layer\$4 deposit\$4)	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/06 09:44
S11 8	73	catalyst and (nickel ni) near5 (sponge porous honeycomb foraminous) same (copper cu) near2 (coat\$4 layer\$4 deposit\$4)	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/06 09:45
S11 9	21	catalyst same (nickel ni) near5 (sponge porous honeycomb foraminous) same (copper cu) near2 (coat\$4 layer\$4 deposit\$4)	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/06 09:45
S12 0	238	(dehydrogenat\$4 reform\$8) with (alcohol ethanol methanol) same (copper cu) with (nickel ni) with catalyst	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/06 09:58
S12 1	126	(dehydrogenat\$4 reform\$8) with (alcohol ethanol methanol) same (copper cu) with (nickel ni) with catalyst same hydrogen	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/06 09:59

## EAST Search History

S12 2	11	("4676972"   "4780300"   "4855267").PN. OR ("5075268").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/06 10:24
S12 3	77	catalyst same (copper cu) near4 (support base) near3 (sponge porous honeycomb foraminous)	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/06 16:24
S12 4	69	S123 and (hydrogen dehydrogenat\$4 reform\$8 crack\$4)	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/06 16:16
S12 5	32	("3839225"   "4025606"   "4077913"   "4188490"   "4358951"   "4716859"   "4743576"   "4780300"   "4913842"   "4927857"   "5414176"   "5559065"   "5616806"   "5635439"   "5637259"   "5672629"   "5899678"   "6025403"   "6051163"   "6083425"   "6114279"   "6123913"   "6126908").PN. OR ("6413449").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/06 16:22
S12 6	31	catalyst same (copper cu) near3 (sponge porous honeycomb foraminous) and (hydrogen with (ethanol methanol alcohol) with (product produced producing produce forming formed formation form))	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/06 16:49
S12 7	216	catalyst with (copper cu) near3 (sponge porous honeycomb foraminous)	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/06 16:50
S12 8	185	S127 not S126	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/06 16:51
S12 9	135	S128 and hydrogen	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/06 16:51
S13 0	43	S128 same hydrogen	US-PGPUB; USPAT; USOCR	OR	ON	2007/06/06 16:52